

Most Frequently Occurring Classifications of Patents Returned
From A Search of 10718031 on July 27, 2006

Original Classifications

30 324/754
7 324/762
6 324/758
3 324/757
2 216/11
2 250/306
2 257/781
2 324/716
2 324/756
2 324/761
2 356/400
2 438/107
2 438/14
2 438/17
2 451/527

Cross-Reference Classifications

16 324/754
9 324/72.5
9 324/762
7 324/758
6 324/158.1
6 324/73.1
4 324/765
4 439/482
4 977/854
4 977/874
3 29/825
3 216/2
3 257/E21.512
3 324/761
3 356/401
3 438/15
3 977/860
3 977/873
2 29/25.35
2 29/827
2 29/846
2 134/42
2 257/E21.313
2 257/E21.508
2 257/E21.525
2 257/E23.02
2 257/E23.021
2 257/E23.06
2 324/755
2 374/7
2 438/125
2 438/18
2 438/611
2 438/614
2 451/548
2 451/552
2 977/849
2 977/879

Combined Classifications

46 324/754

16 324/762
13 324/758
9 324/72.5
7 324/158.1
6 324/73.1
5 324/761
5 324/765
4 324/757
4 439/482
4 977/854
4 977/874
3 29/825
3 216/2
3 250/306
3 257/E21.512
3 356/401
3 438/14
3 438/15
3 451/527
3 977/860
3 977/873
2 29/25.35
2 29/827
2 29/846
2 134/42
2 216/11
2 257/781
2 257/E21.313
2 257/E21.508
2 257/E21.525
2 257/E23.02
2 257/E23.021
2 257/E23.06
2 324/537
2 324/716
2 324/755
2 324/756
2 324/760
2 356/400
2 365/164
2 369/126
2 374/7
2 438/107
2 438/125
2 438/17
2 438/18
2 438/611
2 438/614
2 451/548
2 451/552
2 977/849
2 977/879

Titles of Most Frequently Occurring Classifications of Patents Returned
From A Search of 10718031 on July 27, 2006

- 46 324/754 (30 OR, 16 XR)
Class 324 : ELECTRICITY: MEASURING AND TESTING
324/500 FAULT DETECTING IN ELECTRIC CIRCUITS AND OF
ELECTRIC COMPONENTS
324/537 .Of individual circuit component or element
324/754 ..With probe elements
- 16 324/762 (7 OR, 9 XR)
Class 324 : ELECTRICITY: MEASURING AND TESTING
324/500 FAULT DETECTING IN ELECTRIC CIRCUITS AND OF
ELECTRIC COMPONENTS
324/537 .Of individual circuit component or element
324/754 ..With probe elements
324/762 ...Cantilever
- 13 324/758 (6 OR, 7 XR)
Class 324 : ELECTRICITY: MEASURING AND TESTING
324/500 FAULT DETECTING IN ELECTRIC CIRCUITS AND OF
ELECTRIC COMPONENTS
324/537 .Of individual circuit component or element
324/754 ..With probe elements
324/758 ...Probe alignment or positioning
- 9 324/72.5 (0 OR, 9 XR)
Class 324 : ELECTRICITY: MEASURING AND TESTING
324/72 TESTING POTENTIAL IN SPECIFIC ENVIRONMENT
(E.G., LIGHTNING STROKE)
324/72.5 .voltage probe
- 7 324/158.1 (1 OR, 6 XR)
Class 324 : ELECTRICITY: MEASURING AND TESTING
324/158.1 MISCELLANEOUS
- 6 324/73.1 (0 OR, 6 XR)
Class 324 : ELECTRICITY: MEASURING AND TESTING
324/73.1 PLURAL, AUTOMATICALLY SEQUENTIAL TESTS
- 5 324/761 (2 OR, 3 XR)
Class 324 : ELECTRICITY: MEASURING AND TESTING
324/500 FAULT DETECTING IN ELECTRIC CIRCUITS AND OF
ELECTRIC COMPONENTS
324/537 .Of individual circuit component or element
324/754 ..With probe elements
324/761 ...Pin
- 5 324/765 (1 OR, 4 XR)
Class 324 : ELECTRICITY: MEASURING AND TESTING
324/500 FAULT DETECTING IN ELECTRIC CIRCUITS AND OF
ELECTRIC COMPONENTS
324/537 .Of individual circuit component or element
324/765 ..Test of semiconductor device
- 4 324/757 (3 OR, 1 XR)
Class 324 : ELECTRICITY: MEASURING AND TESTING
324/500 FAULT DETECTING IN ELECTRIC CIRCUITS AND OF
ELECTRIC COMPONENTS
324/537 .Of individual circuit component or element
324/754 ..With probe elements
324/757 ...Probe contact enhancement

4 439/482 (0 OR, 4 XR)
 Class 439 : ELECTRICAL CONNECTORS
 439/476.1 INCLUDING HANDLE OR DISTINCT MANIPULATING MEANS

 439/481 .Randomly manipulated implement
 439/482 ..Test probe

4 977/854 (0 OR, 4 XR)
 Could not find class title.
 Could not find subclass title.

4 977/874 (0 OR, 4 XR)
 Could not find class title.
 Could not find subclass title.

3 29/825 (0 OR, 3 XR)
 Class 029 : METAL WORKING
 29/592 METHOD OF MECHANICAL MANUFACTURE
 29/592.1 .Electrical device making
 29/825 ..Conductor or circuit manufacturing

3 216/2 (0 OR, 3 XR)
 Class 216 : ETCHING A SUBSTRATE: PROCESSES
 216/2 ETCHING OF SEMICONDUCTOR MATERIAL TO PRODUCE AN
 ARTICLE HAVING A NONELECTRICAL FUNCTION

3 250/306 (2 OR, 1 XR)
 Class 250 : RADIANT ENERGY
 250/306 INSPECTION OF SOLIDS OR LIQUIDS BY CHARGED
 PARTICLES

3 257/E21.512 (0 OR, 3 XR)
 Class 257 : ACTIVE SOLID-STATE DEVICES
 257/E21.001 PROCESSES OR APPARATUS ADAPTED FOR MANUFACTURE
 OR TREATMENT OF SEMICONDUCTOR OR SOLID-STATE
 DEVICES OR OF
 PARTS THEREOF (EPO)
 257/E21.002 .Manufacture or treatment of semiconductor
 device (EPO)
 257/E21.04 ..Device having at least one potential-jump
 barrier or surface barrier, e.g., PN junction,
 depletion
 layer, carrier concentration layer (EPO)
 257/E21.499 ...Assembling semiconductor devices, e.g.,
 packaging , including mounting, encapsulating, or
 treatment
 of packaged semiconductor (EPO)
 257/E21.506Attaching or detaching leads or other
 conductive members, to be used for carrying current to
 or
 from device in operation (EPO)
 257/E21.509Involving soldering or alloying process,
 e.g., soldering wires (EPO)
 257/E21.511Mounting on insulating member provided
 with metallic leads, e.g., flip-chip mounting,
 conductive
 die mounting (EPO)
 257/E21.512Right-up bonding (EPO)

3 356/401 (0 OR, 3 XR)
 Class 356 : OPTICS: MEASURING AND TESTING
 356/399 BY ALIGNMENT IN LATERAL DIRECTION

- 356/401 .with registration indicia (e.g., scale)
- 3 438/14 (2 OR, 1 XR)
 Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
 438/14 WITH MEASURING OR TESTING
- 3 438/15 (0 OR, 3 XR)
 Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
 438/14 WITH MEASURING OR TESTING
 438/15 .Packaging (e.g., with mounting, encapsulating,
 etc.) or treatment of packaged semiconductor
- 3 451/527 (2 OR, 1 XR)
 Class 451 : ABRADING
 451/526 FLEXIBLE-MEMBER TOOL, PER SE
 451/527 .Interrupted or composite work face (e.g.,
 cracked, nonplanar, etc.)
- 3 977/860 (0 OR, 3 XR)
 Could not find class title.
 Could not find subclass title.
- 3 977/873 (0 OR, 3 XR)
 Could not find class title.
 Could not find subclass title.
- 2 29/25.35 (0 OR, 2 XR)
 Class 029 : METAL WORKING
 29/25.35 PIEZOELECTRIC DEVICE MAKING
- 2 29/827 (0 OR, 2 XR)
 Class 029 : METAL WORKING
 29/592 METHOD OF MECHANICAL MANUFACTURE
 29/592.1 .Electrical device making
 29/825 ..Conductor or circuit manufacturing
 29/827 ...Beam lead frame or beam lead device
- 2 29/846 (0 OR, 2 XR)
 Class 029 : METAL WORKING
 29/592 METHOD OF MECHANICAL MANUFACTURE
 29/592.1 .Electrical device making
 29/825 ..Conductor or circuit manufacturing
 29/829 ...On flat or curved insulated base, e.g.,
 printed circuit, etc.
 29/846Manufacturing circuit on or in base
- 2 134/42 (0 OR, 2 XR)
 Class 134 : CLEANING AND LIQUID CONTACT WITH SOLIDS
 134/42 .Miscellaneous
- 2 216/11 (2 OR, 0 XR)
 Class 216 : ETCHING A SUBSTRATE: PROCESSES
 216/11 FORMING OR TREATING AN ARTICLE WHOSE FINAL
 CONFIGURATION HAS A PROJECTION
- 2 257/781 (2 OR, 0 XR)
 Class 257 : ACTIVE SOLID-STATE DEVICES
 257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD
 257/780 .Ball or nail head type contact, lead, or bond
 257/781 ..Layered contact, lead or bond

2 257/E21.313 (0 OR, 2 XR)

Class 257 : ACTIVE SOLID-STATE DEVICES

257/E21.001 PROCESSES OR APPARATUS ADAPTED FOR MANUFACTURE

OR TREATMENT OF SEMICONDUCTOR OR SOLID-STATE

DEVICES OR OF

PARTS THEREOF (EPO)

257/E21.002 .Manufacture or treatment of semiconductor device (EPO)

257/E21.04 ..Device having at least one potential-jump barrier or surface barrier, e.g., PN junction,

depletion

257/E21.085 ...Device having semiconductor body comprising layer, carrier concentration layer (EPO)

or without Group IV elements or Group III-V compounds with

257/E21.211Treatment of semiconductor body using impurities, e.g., doping materials (EPO)

material on process other than deposition of semiconductor

material, or a substrate, diffusion or alloying of impurity

257/E21.214To change their surface-physical characteristics or shape, e.g., etching, polishing, cutting

257/E21.294Deposition/post-treatment of (EPO) noninsulating, e.g., conductive - or resistive -

layers on

insulating layers (EPO)

257/E21.3Post treatment (EPO)

257/E21.305Physical or chemical etching of layer, e.g., to produce a patterned layer from pre-deposited extensive layer (EPO)

257/E21.308By chemical means only (EPO)

257/E21.31By vapor etching only (EPO)

257/E21.313Pre- or post-treatment, e.g., anti-corrosion process (EPO)

2 257/E21.508 (0 OR, 2 XR)

Class 257 : ACTIVE SOLID-STATE DEVICES

257/E21.001 PROCESSES OR APPARATUS ADAPTED FOR MANUFACTURE

OR TREATMENT OF SEMICONDUCTOR OR SOLID-STATE

DEVICES OR OF

PARTS THEREOF (EPO)

257/E21.002 .Manufacture or treatment of semiconductor device (EPO)

257/E21.04 ..Device having at least one potential-jump barrier or surface barrier, e.g., PN junction,

depletion

257/E21.499 ...Assembling semiconductor devices, e.g., layer, carrier concentration layer (EPO)

treatment packaging, including mounting, encapsulating, or

257/E21.506Attaching or detaching leads or other of packaged semiconductor (EPO) conductive members, to be used for carrying current to

or

257/E21.507Formation of contacts to semiconductor by from device in operation (EPO) use of metal layers separated by insulating layers,

e.g.,

(EPO)

257/E21.508Forming solder bumps (EPO)

2 257/E21.525 (0 OR, 2 XR)

Class 257 : ACTIVE SOLID-STATE DEVICES

257/E21.515Involving use of mechanical auxiliary part
without use of alloying or soldering process, e.g.,
pressure contacts (EPO)

257/E21.521 .Testing or measuring during manufacture or
treatment or reliability measurement, i.e., testing of
parts followed by no processing which modifies parts as
such (EPO)

257/E21.525 ..Procedures, i.e., sequence of activities
consisting of plurality of measurement and correction,
marking or sorting steps (EPO)

2 257/E23.02 (0 OR, 2 XR)

Class 257 : ACTIVE SOLID-STATE DEVICES

257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR
SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)

257/E23.01 .Arrangements for conducting electric current
to or from solid-state body in operation, e.g., leads,
terminal arrangements (EPO)

257/E23.012 ..Consisting of lead-in layers inseparably
applied to semiconductor body (EPO)

257/E23.019 ...Consisting of layered constructions
comprising conductive layers and insulating layers,

e.g.,

planar contacts (EPO)
257/E23.02Bonding areas, e.g., pads (EPO)

2 257/E23.021 (0 OR, 2 XR)

Class 257 : ACTIVE SOLID-STATE DEVICES

257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR
SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)

257/E23.01 .Arrangements for conducting electric current
to or from solid-state body in operation, e.g., leads,
terminal arrangements (EPO)

257/E23.012 ..Consisting of lead-in layers inseparably
applied to semiconductor body (EPO)

257/E23.019 ...Consisting of layered constructions
comprising conductive layers and insulating layers,

e.g.,

planar contacts (EPO)
257/E23.021Bump or ball contacts (EPO)

2 257/E23.06 (0 OR, 2 XR)

Class 257 : ACTIVE SOLID-STATE DEVICES

257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR
SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)

257/E23.01 .Arrangements for conducting electric current
to or from solid-state body in operation, e.g., leads,
terminal arrangements (EPO)

257/E23.023 ..Consisting of soldered or bonded
constructions (EPO)

257/E23.06 ...Leads, i.e., metallizations or lead frames
on insulating substrates, e.g., chip carriers (EPO)

2 324/537 (1 OR, 1 XR)

Class 324 : ELECTRICITY: MEASURING AND TESTING

324/500 FAULT DETECTING IN ELECTRIC CIRCUITS AND OF

ELECTRIC COMPONENTS

324/537 .Of individual circuit component or element

2 324/716 (2 OR, 0 XR)

Class 324 : ELECTRICITY: MEASURING AND TESTING
324/600 IMPEDANCE, ADMITTANCE OR OTHER QUANTITIES
REPRESENTATIVE OF ELECTRICAL STIMULUS/RESPONSE
RELATIONSHIPS

324/649 .Lumped type parameters

324/691 ..Using resistance or conductance measurement

324/713 ...with voltage or current signal evaluation

324/715Including a particular probing technique
(e.g., four point probe)

324/716To determine dimension (e.g., distance or
thickness)

2 324/755 (0 OR, 2 XR)

Class 324 : ELECTRICITY: MEASURING AND TESTING
324/500 FAULT DETECTING IN ELECTRIC CIRCUITS AND OF
ELECTRIC COMPONENTS

324/537 .Of individual circuit component or element

324/754 ..With probe elements

324/755 ...Internal of or on support for device under
test (DUT)

2 324/756 (2 OR, 0 XR)

Class 324 : ELECTRICITY: MEASURING AND TESTING
324/500 FAULT DETECTING IN ELECTRIC CIRCUITS AND OF
ELECTRIC COMPONENTS

324/537 .Of individual circuit component or element

324/754 ..With probe elements

324/756 ...Contact confirmation

2 324/760 (1 OR, 1 XR)

Class 324 : ELECTRICITY: MEASURING AND TESTING
324/500 FAULT DETECTING IN ELECTRIC CIRCUITS AND OF
ELECTRIC COMPONENTS

324/537 .Of individual circuit component or element

324/754 ..With probe elements

324/760 ...With temperature control

2 356/400 (2 OR, 0 XR)

Class 356 : OPTICS: MEASURING AND TESTING
356/399 BY ALIGNMENT IN LATERAL DIRECTION
356/400 .With light detector (e.g., photocell)

2 365/164 (1 OR, 1 XR)

Class 365 : STATIC INFORMATION STORAGE AND RETRIEVAL
365/129 SYSTEMS USING PARTICULAR ELEMENT
365/164 .Electrical contacts

2 369/126 (1 OR, 1 XR)

Class 369 : DYNAMIC INFORMATION STORAGE OR RETRIEVAL
369/99 SPECIFIC DETAIL OF INFORMATION HANDLING PORTION
OF SYSTEM

369/126 .Electrical modification or sensing of storage
medium (e.g., capacitive, resistive, electrostatic

charge)

2 374/7 (0 OR, 2 XR)

Class 374 : THERMAL MEASURING AND TESTING

- 374/6 DISTANCE OR ANGLE
374/7 .Thickness, erosion, or deposition
- 2 438/107 (2 OR, 0 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
- 438/106 PACKAGING (E.G., WITH MOUNTING, ENCAPSULATING,
ETC.) OR TREATMENT OF PACKAGED SEMICONDUCTOR
438/107 .Assembly of plural semiconductive substrates
each possessing electrical device
- 2 438/125 (0 OR, 2 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
- 438/106 PACKAGING (E.G., WITH MOUNTING, ENCAPSULATING,
ETC.) OR TREATMENT OF PACKAGED SEMICONDUCTOR
438/125 .Insulative housing or support
- 2 438/17 (2 OR, 0 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
- 438/14 WITH MEASURING OR TESTING
438/17 .Electrical characteristic sensed
- 2 438/18 (0 OR, 2 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
- 438/14 WITH MEASURING OR TESTING
438/17 .Electrical characteristic sensed
438/18 ..Utilizing integral test element
- 2 438/611 (0 OR, 2 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
- 438/584 COATING WITH ELECTRICALLY OR THERMALLY
CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive
material
438/611 ..Beam lead formation
- 2 438/614 (0 OR, 2 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
- 438/584 COATING WITH ELECTRICALLY OR THERMALLY
CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive
material
438/612 ..Forming solder contact or bonding pad
438/613 ...Bump electrode
438/614Plural conductive layers
- 2 451/548 (0 OR, 2 XR)
Class 451 : ABRADING
451/540 RIGID TOOL
451/548 .Rotary disk
- 2 451/552 (0 OR, 2 XR)
Class 451 : ABRADING
451/540 RIGID TOOL
451/552 .Stationary
- 2 977/849 (0 OR, 2 XR)
Could not find class title.

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could not find subclass title.

2 977/879 (0 OR, 2 XR)
could not find class title.
could not find subclass title.